



Australian Government

Department of Education, Employment and Workplace Relations

PUADEFEO808B Prepare explosives for metal hardening

Revision Number: 1

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Modification History

Not applicable.

Unit Descriptor

Unit Descriptor

This unit covers the competency required to prepare explosives for metal hardening.

Metal hardening using sheet explosives is a specialised application of explosives and is used to harden metals such as rail points.

This unit does not cover firing of the charges, which is covered in PUADEFEO803A Conduct static proof tests.

Application of the Unit

Application of the Unit

This unit was developed for specialists working within proof and trials organisations within Defence but may be applicable to any individual in this field of work.

Typically these individuals must demonstrate the ability to work independently or as part of a team under direct and/or indirect supervision, use discretion and judgement, and take responsibility for the quality of their output. All activities are carried out in accordance with relevant organisational policies and procedures.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

Employability Skills Information

Employability Skills This unit contains employability skills.

Pre-requisite Unit/s Nil

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a Unit of Competency.

Performance Criteria describe the required performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the Required Skills and Knowledge and/or the Range Statement. Assessment of performance is to be consistent with the Evidence Guide.

Elements and Performance Criteria

ELEMENT

PERFORMANCE CRITERIA

1. Identify metal hardening requirements

- 1.1 Applicable ***legislative, occupational health and safety (OH&S)***, and ***organisational requirements*** relevant to the use of ***sheet explosives*** are verified and complied with throughout work activity
- 1.2 ***Instructions***, plans and/or workplace check sheets are read and interpreted to identify processes and materials to complete work tasks
- 1.3 ***Hardening needs*** are rail measured and the appropriate explosives are identified
- 1.4 Relevant templates used in association with the cutting of the sheet explosives are identified and prepared

2. Prepare sheet explosives

- 2.1 Sheet explosives are inspected to ensure serviceability and safety
- 2.2 Sheet explosives are cut and labeled to the required length and shape
- 2.3 Sheet explosives are prepared for transport to the range

ELEMENT**PERFORMANCE CRITERIA****3. Prepare detonators**

- 3.1 Detonators are identified in accordance with organisational procedures
- 3.2 Detonators are checked for continuity and repacked for transport in accordance with organisational procedures

4. Finalise activity

- 4.1 Area is reconditioned in accordance with organisational procedures
- 4.2 Documentation is finalised

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This describes the essential skills and knowledge and their level, required for this unit.

Required Skills

- analyse and evaluate information
- communicate effectively with stakeholders
- identify relevant information
- liaise effectively with stakeholders
- prepare and present simple reports
- provide and receive feedback in a constructive manner
- review literature
- use appropriate information technology and software
- use a variety of verbal and non-verbal communication techniques

Required Knowledge

- analysis process
- codes of practice
- explosive ordnance in relation to hardening steel
- information sources
- licensing requirements
- organisational guidelines and standards
- regulatory requirements
- relevant legislation
- simple research techniques
- standards relevant to organisational operations
- verbal communication techniques
- workplace safety in regard to handling explosive ordnance
- written communication to a level required in the preparation of simple reports

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the Performance Criteria, Required Skills and Knowledge, the Range Statement and the Assessment Guidelines for this Training Package.

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Assessment must confirm the ability to:

- prepare explosives for metal hardening
- maintain the relevant records.

Consistency in performance

Competency should be demonstrated over time in a variety of metal hardening environments or in a simulated environment.

Context of and specific resources for assessment

Context of assessment

Competency should be assessed in an actual or simulated activity.

Specific resources for assessment

Access is required to:

- licensed explosive workshop
- sheet explosives.

EVIDENCE GUIDE

Method of assessment

This unit may be assessed with the following unit:

- PUADEFEO101D Work safely with explosive ordnance.

In a public safety environment assessment is usually conducted via direct observation in a training environment or in the workplace via subject matter supervision and/or mentoring, which is typically recorded in a competency workbook.

Assessment is completed using appropriately qualified assessors who select the most appropriate method of assessment.

Assessment may occur in an operational environment or in an industry-approved simulated work environment.

Forms of assessment that are typically used include:

- direct observation
- interviewing the candidate
- journals and workplace documentation
- third party reports from supervisors
- written or oral questions.

Range Statement

RANGE STATEMENT

The Range Statement relates to the Unit of Competency as a whole. It allows for different work environments and situations that may affect performance. ***Bold italicised*** wording in the Performance Criteria is detailed below.

Legislative requirements may include

Anti discrimination
Australian Standards
Award and enterprise agreements
Confidentiality and privacy
Duty of care
Employee relations
Environment
Equal opportunity
Industrial relations
Legislation from all levels of government that affect organisational operations
Relevant industry codes of practice

Occupational health and safety (OH&S) requirements may include

Commonwealth, state/territory legislation and regulations, organisational safety policies and procedures
Firefighting organisation and equipment
First aid equipment
Hazard and risk control and elimination
Rescue services
Systems covering hazardous materials and substances, and manual handling including lifting and carrying
Use of personal protective equipment and clothing

Organisational requirements may include

Access and equity principles and practices
Emergency and evacuation
Environmental management (waste disposal, recycling and re-use guidelines)
Equipment use, maintenance and storage
Ethical standards
Legal, organisational and site guidelines, policies and

RANGE STATEMENT

	procedures relating to own role and responsibility OH&S Procedural manuals Quality assurance Quality and continuous improvement processes and standards Recording and reporting
Explosives are	Contained in suitable material that allows it to be shaped and formed prior to functioning Manufactured in sheets of varying thicknesses and lengths Mixed and constituted uniformly in plasticised compounds
Instructions may include	Departmental requirements Manufacturers' instructions for the use of equipment and materials Workplace instructions including job sheets, plans, specifications, drawings and designs Workplace procedures relating to reporting and communications Workplace procedures relating to the use and operation of tools and equipment
Hardening needs may include	Compensating the differing sheet explosives available for use at a given time Compliance with varying state/territory regulations regarding the thickness or other specification of hardening required

Unit Sector(s)

Not applicable.